

CLAIMS

1. A method for identifying compounds that inhibit the proliferation of cells, comprising:
 - (a) contacting a test compound with a cell which overexpresses a heat shock 72 protein;
 - (b) determining whether the test compound inhibits the activity of the heat shock 72 protein,in which test compounds that inhibit the heat shock 72 protein are identified as compounds for inhibiting cell proliferation.
2. A method for identifying compounds that inhibit the proliferation of cells, comprising:
 - (a) contacting a test compound with a cell which expresses a C-terminal protein binding domain of the heat shock 72 protein;
 - (b) determining whether the test compound inhibits the activity of the C-terminal protein binding domain of the heat shock 72 protein,in which test compounds that inhibit the activity of the C-terminal protein binding domain of the heat shock 72 protein are identified as compounds for inhibiting cell proliferation.
3. The method of claim 1 or 2 in which the activity of the heat shock 72 protein is determined by measuring the level of anchorage-independent cell growth.
4. The method of claim 1 or 2 in which the activity of the heat shock 72 protein is determined by measuring the level of cell growth in soft agar.
5. The method of Claim 1 or 2 in which the activity of the heat shock 72 protein is determined by measuring the level of heat shock induced apoptosis.

6. The method of Claim 1 or 2 in which the activity of the heat shock 72 protein is determined by measuring the level of heat shock induced JNK phosphatase activity.

7. A method for identifying compounds that inhibit heat shock 72 protein mediated JNK phosphatase activation, comprising:

- (a) contacting a test compound with a cell which expresses a heat shock 72 protein;
- (b) exposing the cell to a heat induced stressed; and
- (c) determining whether the test compound inhibits JNK phosphatase activity.

8. A method for identifying compounds that inhibit cell proliferation comprising:

- (a) contacting a heat shock 72 protein and a test compound under conditions and for a sufficient time to allow the two components to interact and bind, thus forming a complex; and
- (b) detecting the formation of a complex.

9. The method of Claim 8 wherein the heat shock 72 protein is the C-terminal peptide binding domain.

10. A method for identifying compounds that inhibit cell proliferation comprising:

- (a) contacting a test compound with a cell which expresses the heat shock 72 protein;
- (b) determining whether the test compound inhibits the expression of the heat shock 72 protein, in which test compounds that inhibit the expression of the heat shock 72 protein are identified as compounds for inhibiting cell proliferation.

11. A method for inhibiting the proliferation of cells comprising administering an inhibitor of heat shock 72 protein activity.
12. The method of claim 11 wherein the inhibitor of heat shock 72 protein activity is an anti-heat shock 72 protein antibody.
- 5 13. The method of claim 11 wherein the inhibitor of heat shock 72 protein activity is a heat shock 72 antisense nucleic acid.
14. A method for inhibiting the proliferation of cells comprising administering an inhibitor of JNK phosphatase activity.
- 10 15. A composition comprising an inhibitor of heat shock 72 protein activity and a pharmaceutically acceptable carrier.
16. The composition of Claim 15 wherein the inhibitor of heat shock 72 protein activity is an anti-heat shock 72 protein antibody.
17. The composition of Claim 15 wherein the inhibitor of heat shock 72
15 protein activity is a heat shock 72 antisense nucleic acid molecule.
18. A composition comprising an inhibitor of JNK phosphatase activity and a pharmaceutically acceptable carrier.
19. A method for treating a proliferative disorder comprising modulating the activity of a heat shock 72 protein.
- 20 20. A method for treating a proliferative disorder comprising modulating the activity of a JNK phosphatase.